

REMARKS

The Office Action mailed June 9, 2004, has been received and its contents carefully considered.

The present Amendment corrects informalities in the specification and drawings, and makes revisions in the claims to improve their form and further clarify the invention under U.S. patent practice.

Summary of Claim Amendments

Claim 1 has been amended to assure proper antecedent basis and correct typographical errors, and to further clarify the invention in relation to the cited prior art. The addition of the language recited in the step of determining, “for all of the data transferred to the floppy diskette,” is supported in the specification on page 2, line 8 and page 12, lines 7 and 12. The present Amendment clarifies the previous claim language, and it is respectfully submitted that the application is enabling with respect to the current version of claim 1.

Claim 2 has been amended to correct an antecedent basis issue.

Claim 3 has been amended to assure proper antecedent basis and correct typographical errors, and to further clarify the invention relative to the cited prior art. As stated above, in independent claim 1, the addition of the language recited in the step of determining, “for all of the data transferred to the floppy diskette,” is supported in the specification on page 2, line 8 and page 12, lines 7 and 12. The present Amendment clarifies the previous claim language, and it is respectfully submitted that the application is enabling with respect to the current version of claim 3.

Amendments to the Drawings

Figure 3 has been amended, as identified above, to include omitted logical designators and a logical path for the decision element identified by reference number 308.

Response to Claim Rejections Under 35 U.S.C. § 102(e)

The Office Action in paragraphs 1 and 2 reject Applicant's claims 1-3 under 35 U.S.C. § 102(e) over Adams, U.S. Pat. No. 6,401,222.

Independent claims 1 and 3 of the claimed invention disclose a method for preventing data corruption in a Floppy Diskette Controller. According to the claimed invention, when a requested computer system operation accesses data from an FDC, a lifetime of a DMA request (DREQ) is measured, i.e., the time period from the request issuing to the request removing. When the measured lifetime exceeds a preset value, an error signal is issued to indicate a read/write error.

A feature of the invention includes the calculation of this DMA lifetime threshold for determining whether to issue an error signal. As specified in claims 1 and 3, the DMA lifetime threshold is calculated from the period of time between the DREQ issue signal to the DREQ removal signal. Additionally, the amended independent claims 1 and 3 now add the recitation of, “determining for all of the data transferred to the floppy diskette if a requested computer system operation accesses the data from the floppy diskette controller .” This amended claim language now clearly recites an important feature of the invention in the detection of read/write delays in all transferred data, irrespective of the sequential position of that data during the read/write operation.

Adams teaches a detection process capable of detecting defective floppy diskette controllers (FDCs) without visual hardware inspection or identification. According to the method taught by Adams (column 8, lines 26-28, and Fig. 4), once the test 58 indicates that the byte counter has reached the last byte, the signal transition from DREQ 21a to DACK 21b may be timed and accordingly delayed 60.

As described above, the method taught by Adams only detects read/write delays in the last byte of a sector, wherein the read/write delay is determined according to time period between issue time of a DREQ signal and receiving time of a corresponding DACK signal. On the contrary, the present invention detects read/write delays in all transferred data, and the read/write delay is estimated as the lifetime of a DMA request (DREQ), i.e. the time period from the DREQ issue to the DREQ removal.

As discussed above, the detection targets (DREQ and DACK signals) method of Adams and the present invention are different, and the criteria for determining read/write delays (in the last data byte) of Adams are different. Furthermore, because the DREQ is removed after the arriving of a corresponding DACK, the receiving time of a corresponding DACK signal is different and earlier than the removal of the DREQ.

Since Adams fails to teach Applicant's amended independent claim 1 and 3 recitations as demonstrated above, Applicant respectfully request that the outstanding rejection be withdrawn and the claims be allowed. Since, independent claims 1 and 3 are patentably distinguishable over the prior art, then by necessity, claim 2 depending on independent claim 1, is also patentably distinguished over the prior art.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance and such a Notice, with allowed claims 1-3, earnestly is solicited.

Respectfully submitted,



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AMENDMENT

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AMENDMENTS TO THE DRAWING FIGURES

Please replace Figure 3 with the accompanying Replacement Sheet Drawing of Fig. 3 included with this response.

Replacement Sheet Drawing of Figure 3 has been amended to include omitted logical output identification for the decision element identified by reference number 308. A “YES” output label has been included, and a “NO” output label and a corresponding logical direction line has been included.